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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/134,771 08/12/98 SAH

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EXAMINER

KAUSHAL, S

ART UNIT

PAPER NUMBER

1633

11

DATE MAILED:

10/03/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/134,771

Applicant(s)

SAH et al

Examiner

SUMESH KAUSHAL

Group Art Unit

1633



☒ Responsive to communication(s) filed on Jul 5, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-24 is/are pending in the application.

Of the above, claim(s) 16-22 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-15, 23, and 24 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 10

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

The applicant's response filed on Paper No. 8, 07/05/00 has been fully considered. Claims 1, and 6 are amended. Claims 1-15 are pending in this application.

Claims 16-22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 6, 02/18/00.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

1. Claims 1-15 and 23-24 remains rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Hosimaru et al (PNAS. 93:1518-1523, 1996) and Prasad et al (In Vitro. Cell Dev. 30A:596-603, 1994) in view of Boss et al (US 5411883, 1995) and Gallyas et al (Neurochem. Res. 22(5):569-575, 1997) for the same reasons of record as set forth in the official action mailed on 3/16/00.

2. Applicant's arguments filed 07/05/00 on pages 4-5 have been fully considered but they are not persuasive. The applicant argues that Boss et al does not teach or suggest the progenitor cells disclosed in the present invention because the cells as taught by Boss et al grow two dimensionally whereas the cell of present invention grow as a monolayer. The applicant further argues that Gallyas et al does not provide any suggestion to human mesencephalon neuronal progenitor cells and

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concluded that cited references alone or in combination do not suggest the conditional immortalization of a human neuronal precursor cell that is capable of differentiating into dopaminergic and/or GABA-ergic neurons.

However, this is not found persuasive because besides teaching the isolation and culture methods for the proliferation of human mesencephalon neuron progenitor cells, Boss et al also teaches that the cells can be grown as a monolayer (see abstract; col.5 line 40-67; col.6, line 33; col.9-10, table 1-3; col.20 line 60).

Furthermore, in response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Hosimaru et al teaches the immortalized rat neuronal progenitor cells wherein the expression of v-myc oncogene is conditionally driven by a tetracycline-controlled transactivator and a human cytomegalovirus (CMV) promoter and the presence of several cytokine, or forskolin or growth factors that governs the differentiation of immortalized neuronal precursor cells. Gallyas et al teaches the characterization of mouse immortalized neuronal cell lines by measuring the concentration of various neurotransmitters, like GABAergic and dopamine. Boss et al teaches the isolation and monolayer culture of human mesencephalon neuron progenitor cells.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the immortalized rat neuronal progenitor cells as taught by Hosimaru et al and

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Prasad et al with human mesencephalon neuron progenitors cells as taught by Boss et al. It would have been further obvious to characterize immortalized human mesencephalon cells as taught by Gallyas et al because dopamine and GABA are neurotransmitter of interest. One would have been motivated to make immortalized human neuronal progenitor cells wherein the expression of v-myc oncogene is driven by tetracycline-controlled transactivator because the suppression of v-myc oncogene in an immortalized progenitor induces the differentiation of the neuronal progenitor cell. One would have been further motivated make immortalized human neuronal progenitor cells because the human neuronal cells would have been useful in the study of neurotransmitters and neuron cell differentiation.

Conclusion

No claims are allowed.

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

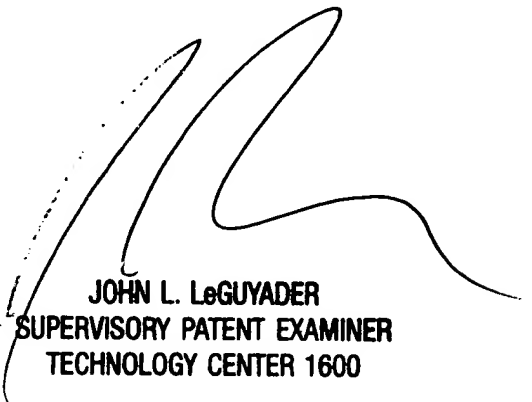
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

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calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumesh Kaushal Ph.D. whose telephone number is (703) 305-6838. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor John L. LeGuyader can be reached on (703) 308-0447. The fax phone number for the organization where this application or proceeding is assigned as (703) 308-2035. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 308-0196.

S. Kaushal, AU 1633



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